

RAPPAM Recommendations for Individual Protected Areas

10 February 2005

Bagiai WMA

The WMA has not been functioning for about 15 years but was initiated in the first place by a community request. Its boundary covers the most undeveloped part of Karkar Island and the adjacent sea although, in common with the rest of the island, it has experienced a great increase in human population in recent decades (question 2). In the last ten years this has resulted in land disputes the first time and the increased pressure on the natural resources runs parallel to this. At the RAPPAM meeting there was a very strong call from community members to the government to enforce concepts of birth control (the population has trebled in the last 30 years).

The lowland coastal belt has suffered from coconut plantations, gardening and settlement pressure and it appears to this writer that there is only one section of? Less than 1 km of indigenous forest that connects the marine part of the PA with the forest behind the lowland belt. This is the main reason for the LLG President suggesting that the WMA could be revitalized but removing the lowland part. Although there is logic in this argument it would relinquish from any form of protection an important ecological connectivity (between the marine and the natural terrestrial environments) via rivers and small patches of indigenous forest. The design of the PA could be usefully reviewed to investigate whether retention of the lowland area would undermine a local belief in the WMA as a coherent unit of land worthy of enforcing as protected. Possibly the defining of certain areas for settlement and gardening purpose would be a practical necessity.

There is still considerable respect for *masalai* traditions in most parts of the WMA, and belief is especially strong in the *masalai* of the upper parts of the mountain.

Essential to any WMA revitalization programme is socio-economic research to establish the main drivers within the community. The community members are well-armed with ideas for sustainable economic development ranging from tourism to barramundi farming, and piggeries and would need support in developing these ideas. Community members identified their agriculture as making inefficient use of the available land and request agricultural training to facilitate sustainable patterns of intercropping and of fallow periods.

There appears to be general support for the idea of conservation within the community but they have lacked the leadership to drive this forward in recent years. It is hoped that they will receive some support from the LLG government but there is a great need for skilled input from either DEC or an NGO. This is vital for initially facilitating a programme to realize some of the community's wishes for sustainable development. Some progress could encourage future involvement amongst community members and perhaps galvanize local leadership. Building the management capacity within the community to enable them to drive the programme is essential since a lack of capacity appears to have allowed responsibility for the natural resources to slip from their fingers. A programme of awareness is also essential (for both environmental conservation and the WMA itself) as this has been absent for many years.

The LLG government appears to be active although they have lacked the capacity to enforce WMA rules, partly due to not knowing of the existence of the WMA until the RAPPAM exercise. The President and the Environment officer have made a very positive public promise to put environment back onto the agenda practically by including it on the Ward Development Plans. The Environment officer is very keen to take his role seriously but admits that he has not known how to do so – this role should be supported with capacity building if such enthusiasm is to become useful.

Recommendations

- DEC / NGO to conduct socio-economic research (to establish the drivers and desires within the community)
- Support community to bring to reality at least one of their already-identified community development ideas (to regain belief in the potential of the WMA for progress).
- Build capacity within / retain interest of local government by including them in any training programmes (the WMA is a community project but needs the understanding and support of local government too).
- Initiate on-going long-term awareness campaign (the community also requests family planning)

- Review boundary (is the current boundary still believable and supported? Does it need a defined area for settlement and gardening and wildlife sanctuary?)
- Develop these activities as part of a Madang Coast MPA network including Madang Lagoon MPAs, Ranba WMA/Sanctuary and Crown Island Sanctuary

Baiyer River Sanctuary

TO BE SUPPLIED BY PETER BOSIP

Balek Wildlife Sanctuary

Balek remains an easily accessible PA and if promoted and linked to travel agents or tour operators, it would be well received and visitor numbers can be increased. The actions such as the sulphur creek water need to be examined further to see if there are medical properties that could be marketed and tracks up to the ridge for climbers should be investigated.

Recommendations

- Supporting of the formation of a CBO (if not already in place) to look after the conservation and development needs of the community including management and book keeping skills besides other administrative responsibilities.
- A proper work plan and specific conservation objectives to be decided upon including tourism networking as an activity.
- Capacity building of CBO including skills to carry out community profile, ranger training and LLG and law enforcement agencies (Police) involved so that they are aware of the enforcing legislation and how it can be enforced or implemented.
- Review of PA and customary boundaries including land use and GPS mapping to be undertaken.
- Need for awareness exercise to be given out again together with sustainable livelihood options. A survey need to be undertaken first and would follow together in the workplan as set out above. Together with this, visitor facilities or social infrastructure may need to be considered.

Baniara Island WMA

DEC yet to provide comments and recommendations

Cape Wom Memorial Park

Cape Wom Memorial was established as a memorial from WWII to commemorate the site of the declaration of defeat of the Japanese forces in 1945. There is generally good commitment to the park within the community, particularly in hope that war tourists would provide income possibilities. As the park is on state-owned land, the community feels that it is the government's task to set up visitor facilities. The community has started collecting fees, but was stopped by the government as this is not legal.

The main obstacle from the community view point is the non-existence of funding for maintenance and facilities. Frustration and anger in the community has led to a land dispute. The community says they have a plans for managing the park and are eager to take action to lead more tourist to visit Cape Wom. Since it is state-land though it is out of their hands.

Recommendations

- Clarify ownership and boundary of Cape Wom
- Making sure government and landowner respect the agreed boundary
- Government to provide employment opportunities in i.e. having a ranger
- It might be helpful for the Wewak Government and the communities to sit down and discuss in how far the communities can be involved in the Memorial Park and if some of the objectives they suggested can be applied.

Crater Mountain WMA

Crater Mountain WMA is alive and functioning relatively well.

Discussion with community members and with RCF field staff shows that there is generally a fairly good level of interest in conservation within the communities. The issues and motivators are different within different communities (some being more motivated by modern money drivers than others that are more traditional) within the one WMA. At least in meetings with the RAPPAM assessment team the community at Haia (and Wabu) repeatedly avowed that they would not allow logging, mining and oiling on their land (possibly this would change once the companies make advances to them specifically). Whereas, by contrast, at Herowana they have already agreed on the manner in which oil drilling can operate. Such (apparently) different attitudes and expectations of their resources means that single measures cannot be easily introduced as solutions across the whole PA.

One issue affecting PA management is the size of the WMA. Its size and inaccessibility makes it difficult for RCF to reach more than a few communities and also for the communities to form a meaningful and coherent committee that can meet regularly. However, to reduce the size of the WMA would be to reduce one of the main benefits of the WMA, namely the availability of sufficient space and differing habitats and altitudes to sustain viable wildlife populations in the long-term.

Also related to boundary is the claim of some communities (SE of the WMA at least) that they were never consented to being included within the WMA (question 7). If the boundary was reviewed and adjusted to include only consenting landowners it would enable the WMA to be perceived as speaking with one united voice and to be taken more seriously, for example, by local government. Lack of recognition of the WMA as a legal entity by local government authorities is currently identified as a cause for disillusionment and weakened leadership (questions 7 and 15ii). A programme of awareness starting with the local government would be a constructive step in this direction.

Funding (question 12) is a major issue and lay-offs within RCF have recently been necessary due to lack of funds. Maintaining a steady flow of funds must remain of the highest priority for RCF. Of secondary importance would be an increase in the level of funding from previous levels. This would enable, for instance, a greater RCF field staff presence (question 9) and a broader spread of the conservation message and conservation benefits throughout the WMA.

One possibly intractable issue is the dependency of communities upon RCF and WCS as their only source of development opportunities. Perhaps worryingly, the community at Haia referred to RCF as their 'government'. This is of course mostly a reflection of the lack of true government support but is an unfortunate situation that can only be mitigated by the community taking as much responsibility as possible for all activities. Expectations that external support to schools, water systems and buildings will continue are certainly visible at Haia where they look, for instance, to RCF for a new office instead of building a new one with available materials. Such issues may lead RCF to question their role as conservation agency (eg environmental education and ranger training) versus development agency.

Recommendations

- Awareness campaign starting at local government level
- Review WMA boundaries to encompass only consenting landowners
- Expand RCF's outreach to other / new areas within the WMA
- Maintain a steady flow of funds through RCF; (and also increase levels of funding)
- Ranger training could be given to committee /community members
- RCF staff performance should be systematically and regularly reviewed
- Tools or systems should be developed to allow RCF to incorporate research and monitoring data into practical conservation management

Crown Island Sanctuary

Crown Island itself remains virtually untouched while the marine part of the Sanctuary remains unpolluted and the fish and coral life thrives. There is currently no conservation being practiced at Crown Island but with the environment still in great condition there is an urgency to reignite the concept.

The permanent settlement of Crown Island since the late 1990's (against the wishes of the original committee) has changed the management dynamics for the Sanctuary. The management is supposed to be carried out by a committee located on Long Island. Although this committee has not functioned for many years it would be very difficult to reinstate effective control from there without the full commitment of the inhabitants of Crown; currently this is lacking.

The harvest of turtles, turtle eggs and shells, (particularly trochus shells for commercial sale), is practiced by the inhabitants / landowners and will reach an unsustainable level at some point as the human population on the island expands. There has always been a misconception that they are allowed to take turtles under the rules of the Sanctuary and an absence of written rules and objectives allows this to continue.

The inhabitants are from Long Island where there have been traditions of closure of areas to hunting and, since the concept is not alien, it may enable future conservation efforts on Crown Island.

There has been no clear leadership in the committee and the objectives of the PA have been allowed to be overridden. A new committee was proposed by the community at the RAPPAM meeting at Matafun on Long Island in July 2004. The names are: Samoana Goreka (Bok village), Sam Hande (Crown Island), Paul Keka (Bara), Mathias Korima (Matafun) and Matthew Ronny (Matafun).

This committee is likely to fail again unless they are provided some support by government or NGOs. There is some hope that leadership can be established through this committee and an able man (Matthew Ronny) who appears to have the support of the community, was nominally given the position of leading the committee.

Every effort was made at the RAPPAM meeting to dispel expectations to avoid unnecessary disillusionment again. However, there is still hope amongst the community that there will be an environment officer appointed from within the community.

Recommendations

- The issue of inhabiting the island must be first tackled head-on and this should be done by an independent third party (government or NGO) mediating between the committee on Long Island and the Crown inhabitants. If the inhabitants of the island are to remain, they must be incorporated into the management of the PA as the alternative sets up antagonism between the two and a precedent is already established for such confrontation.
- The committee should primarily receive support in the form of capacity building as there are currently no management skills to be found amongst the committee members. Leadership and communication skills are major issues and should be prioritised in any training programme.
- Important to bear in mind is simply that regular contact with a supporting agency, be it government or NGO, would be of huge benefit to such a remote committee. Past feelings of being ignored (in terms of conservation) were certainly a major factor in the Sanctuary's demise.
- **Develop these activities as part of a Madang Coast MPA network including Madang Lagoon MPAs, Ranba WMA/Sanctuary and Crown Island Sanctuary**

Garu WMA

Garu WMA is faced with the situation of having very little to no support from all three tiers of government. The people would like the WMA to continue but at the same time would like a part of it degazetted for other purposes. The WMA is not really working. What motivates them at the time is the use of the hot springs by tourists and the megapode nesting sites. In order for the WMA to be successful as brought forth by the Chairman of the WMA is that there has to be funding, training both technical, social and economic for the people of Garu WMA Committee and community.

Recommendations

- WMA Committee and their LLG member to meet and discuss their different views concerning the WMA and the outcome of this be made known to partners and relevant Government bodies through their representatives.
- Technical training by Mahonia Na Dari and TNC as the NGOs present in the province and the follow up of these trainings to ensure continuity.
- Funding from LLG, Provincial and National Governments to improve and put in place the existing communications and infrastructure of the WMA.
- Follow-up of the WMA Committees for the request for degazetted of a portion of the WMA.

Hombareta

TO BE SUPPLIED BY DEC

Hunstein Range WMA

Hunstein Range WMA stands within the bulk of the PAs in PNG where they are remote and hard to get to. Their isolation is advantageous in maintaining a full set of ecosystems working effectively to maintain biodiversity. There are minor threats in the PA relating to alluvial gold mining, and the harvesting of gaharu but on the whole most of the habitats are maintained. Below is some recommendation from Duguman (2004) and this RAPPAM which set out areas for possible intervention.

Recommendations

- Supporting of the formation of a CBO (maybe ADLEF in a different form) to forge and support work of WMA Committee to look after the conservation and development needs of the community including management and book keeping skills besides other administrative responsibilities. (This requires a lot of work but is essential for a PA).
- Introduce support into communities of sustainable livelihood options such as jatropa plant for live fences, substitute for kerosene, fertilizer etc.
- Assist community with routes for their gaharu and gold to provide finance for other sustainable enterprise (crocodile farming).
- A proper workplan and specific conservation objectives to be decided upon.
- Upgrading of PA from WMA to Conservation Area or any other LLG legislation to give it more protection of the flora and fauna.
- Capacity building of CBO including skills to carry out community profile, ranger training and LLG and law enforcement agencies (Police) involved so that they are aware of the enforcing legislation and how it can be enforced or implemented.
- Together with this, visitor facilities or social infrastructure may need to be considered.

Iomare WMA

TO BE SUPPLIED BY DEC

Jimi Valley National Park

TO BE SUPPLIED BY PETER BOSIP

Kamiali WMA

TO BE SUPPLIED BY VDT

Kavakuna Caves WMA

Kavakuna is one of the PAs that was given a gazettal notice in the 1980s and then forgotten. With dwindling or mismanaged resources from DEC, nothing has been forthcoming but the community under a good leadership has kept out loggers who have destroyed most of the island of New Britain.

A number of areas within the RAPPAM framework call for intervention so that the PA can be upgraded to constitute a respectable conservation area and qualify for further work. The idea of getting the Nakanai range into a World Heritage site is also a possibility and there could be options for carbon sequestration associated with this initiative. French speleologists and their colleagues have conducted expeditions from the 1970 till 1990 and now are moving to other caves in the Nakanai Ranges and it would be useful to see how a joint agreement between the French Environmental Fund and others can be sourced to assist this PA. The idea of getting the Nakanai range into a World Heritage site is also a possibility and there could be options for carbon sequestration associated with this initiative.

The PA also presents a never ending source of water fall which can be converted into mini hydroelectricity plants and with electricity, other development initiatives of the natural resources can be pursued.

Recommendations

- Kavakuna status must be updated to one that has the potential of attracting cavers and other eco tourism initiatives into the area. Here is a guide on what needs to be done to the PA.

- Supporting of the strengthening of the WMA committee to look after the conservation and development needs of the community including management and book keeping skills besides other administrative responsibilities.
- A proper work plan and specific conservation objectives need to be decided upon.
- Upgrading the PA from WMA to Conservation Area or any other legislation to give it more protection of the flora and fauna.
- Capacity building of the WMA committee and community members in skills to carry out community profile, ranger training. Law enforcement agencies (Police) should be involved so that they are aware of the WMA rules and how they can be enforced or implemented.
- Review of PA and customary boundaries including land use mapping to be undertaken. Boundary revisions should seek to include the entire karst hydrological system.
- Conduct an awareness exercise with communities on conservation management and sustainable livelihood options.
- Visitor facilities or social infrastructure may need to be considered.

Klampun WMA

The community in Klampun is well organised and have numerous activities occurring where they take pride in their village. The stand out of youth leaders has been the main driving force behind the need to provide for their future and where sustainable livelihood options could be further enhanced. Recently, the WMA committee is getting an upgrade to be a conservation association and the WMA should also follow suit and get upgraded into a Conservation Area so that flora together with fauna is safeguarded.

Extension volunteers of partner NGO (ENBSEK) have gone out from Klampun into nearby communities in the East Pomio constituency carrying out awareness on sustainable livelihood and logging and these communities are slowly realising the costs of forgoing their forests. It is now imperative that further support be given to the Klampun WMA as it has the potential to be a centre for conservation activities across the East Pomio district.

Suggestions given here are to strengthen the Klampun organisation and a successful PA will emerge given the community's initial interest to set aside their land for it.

Recommendations

- Supporting the CBO from the WMA committee to give it legal status. It was set up to look after the conservation and development needs of the community including management and book keeping skills besides other administrative responsibilities.
- A proper work plan and specific conservation objectives to be decided upon. This will be done together or after the resource management plan is done by the consultant.
- Upgrading of PA from WMA to Conservation Area or other legislation to give it the ability to protect flora as well as fauna.
- Capacity building of CBO including skills to carry out community profile and ranger training. LLG and law enforcement agencies (Police) to be involved so that they are aware of the enforcing legislation and how it can be enforced or implemented.
- Further support in sustainable livelihood options besides those currently undertaken. A survey need to be undertaken first and would follow together in the work plan as set out above.

Kokoda Historical Track (Reserve) and Kokoda Memorial Park

Kokoda Track Reserve is functioning relatively well as PNG's premier historic trekking destination. Over 2000 trekkers took the gruelling ten day journey in 2003 and trekking companies have been working closely with communities to maintain and display the historic and cultural values of the important World War II Track. Income from guiding, accommodation, food, transport and artefact sales has produced a strong local economy relative to other areas of PNG. In addition trekkers and trekking companies have joined a number of philanthropic groups in supporting improved health and education facilities. The regular trekking groups and growing number of books and documentaries on the history of Kokoda have ensured that local communities are well informed on and strongly support the historical values of the Track.

However, this effort is largely in spite of its status as a formal protected area. The Kokoda Track Reserve does not have clear objectives or rules. No official management plan has been developed and there is no evidence of continuing cooperation among landholding communities to ensure effective protection. Government inputs with a few exceptions are minimal and poorly coordinated. The development of a Kokoda Track Authority

funded by the K200 trekking fees offers the possibilities of improved collaboration between the many interest groups on the Track and the development of a more coherent management regime. A Sustainable Tourism Strategy is currently being developed by the Kokoda Track Foundation in association with the KTA.

From a biological point of view, the Owen Stanley Ranges across which the Track runs is one of the most important biological areas in the Asia Pacific. On this Range alone are more species of plants than the entire World Heritage listed wet tropic rainforests of North Queensland. The Owen Stanley forests provide habitat for endemic birds of paradise, bowerbirds, finches, wallabies and numerous species of butterflies and plants. These biological values have been sorely neglected in the development of the Track Reserve and the trekking industry that it supports. The 10 metres wide reserve protects only the forests immediately on either side of the Track and does very little to protect species or habitats. The proposal for a more extensive Kokoda reserve that includes forest areas over a wider section of the Owen Stanley Ranges deserves urgent support. This extension should consider possible links to the 300,000 ha conservation area proposed for the nearby Managalas Plateau.

Finally it is important to remember that the Kokoda Track is iconic in the history of PNG, Australia and New Zealand as the site of a major World War II battle that turned the fortunes of the Japanese in the Pacific. This is PNG's most significant land-based tourism drawcard offering a remarkable combination of historical, cultural and natural features to the visitor and great benefit to the tourism industry in Port Moresby as well as Kokoda. As such, it deserves much more coherent support from government in particular.

Recommendations

- Support community requests to expand the reserve to cover significant areas of the Owen Stanley ranges
- Identify funding and maintain the strong stakeholder support for the development of a Kokoda Track Sustainable Tourism Strategy
- Confirm with the PNGFA that proposed forest developments will not proceed on the Kokoda Track
- Provide support to Kokoda Track Authority and training for landowner representatives and staff in issues relating to reserve management and interpretation
- Investigate the impact of hunting and gardening on the flora and fauna of the region.

Lake Kutubu WMA

INSERT

Lake Lavu WMA

This protected area is apparently quite healthy, in terms of both its ecology and its socio-economic role in local communities. As such, few “issues” as such are confronting it. There is good commitment from the community to the continued existence of the wildlife management area, but the community would doubtless benefit from further education on conservation issues (preferably coupled with some practical assistance in developing sustainable livelihoods). Probably the enthusiasm of the community for conservation drives the current protection, coupled with the good luck that the pressure for resources is not higher. The main obstacle to a successful PA is a good understanding by all stakeholders of the purpose of the protected area. The community is eager to develop income generation opportunities including butterfly farming, ecotourism, vanilla cropping etc.

Recommendations

- What actions are recommended? (if non-action is recommended please give reasoning)
- a more thorough biological survey should be conducted, to ascertain the true biological value of the protected area
- a survey of the Freshwater Crocodile population and local harvesting trends should be conducted – preferably with ongoing terms of reference
- Subject to these two preliminary activities, this protected area has the potential to be a significant biodiversity reserve, and also to contribute significantly to the wealth of the local communities.

Laugum WMA

TO BE SUPPLIED BY NICK MITCHELL

Lihir Island WMA

Lihir Island presents a peculiar setting as a PA having a gazettal notice over the whole island having its main objective to “protect megapode resources and nesting areas from the activities of non-customary people attracted to a large mining operation about to begin on the island”. It went on to say that its establishment did not achieve this purpose as most of the megapode nesting areas will be destroyed. LMC agree that even though the gazetted document was in place, the Government approved the Mining project subject to a megapode monitoring program knowing that the majority of megapode nesting areas within the mining lease would be destroyed.

For this reason, it may be time to examine the gazettal notice to see what can be considered to be appropriate whether in a conservation area setting or wildlife management area setting given the changing circumstances. This would need consultation between DEC, LMC, Provincial and LLG and communities.

LMC has done a comprehensive coverage on aspects of the management of protected area tied to its EP and EMMP and they are only willing to work with organisation to address issues which will be mutual to all parties.

Recommendations

- Useful discussions need to be started between DEC, LMC, National, LLGs and communities in deciding the status of the PA. Other alternatives for conservation such as a WMA or a conservation area with biodiversity objectives need to be considered on the island.
- All aspects on each of the sub headings in RAPPAM have been covered by LMC within its resources and only through discussions between all stakeholders (as mentioned above) can a mutual agreement on conservation area eventuate. LMC is a member of the Rio Tinto company group and have interests into bird watching etc and these resources can be effectively drawn to establish further conservation sites on the island.

Loko National Park

TO BE SUPPLIED BY RUBY YAMUNA

Maza WMA

The main issues in this PA include

- Disputes settlement between Paskatuma Association and PA committee still outstanding
- Funding support for the PA
- Review of Management structure and rules.
- Enforcement of PA Rules.
- Office set-up.
- Key training for PA committees and rangers.
- Regular and systematic process of report and monitoring of activities taking place in the PA

There is evidence of some commitment transpose by resource owners but lack of PA management capacity by committee members makes breach certain rules as there is also lack of law enforcement.

This PA is not working and non functional. For the PA to work for a start the conflict between Paskatuma and PA committee would have to be solved. Then review the PA management structure and committee with rules. Then looking at sustainable artisanal fisheries activities as a possibility for income earning opportunity for the community to drive the conservation.

The main obstacles to successful functioning include lack of fund raising and incentives to support PA committees and a proper PA functional office would pave way for a healthy PA work.

Issues at community levels are solved by each community through community resolution action process but issues within PA committees are only resolved at the meeting which has not occurred in the last 4 years.

Recommendations

The recommendations have expressed by PA committees and also observed during several of our field patrols. They are set-up PA office, review of committee PA structure, management capacity, develop and plan training for PA committees, rangers, mass awareness on resource management issues and PA rules and assist

community members with income generation incentives and finally, assist PA to fund raise and support itself to effectively run its own affairs.

McAdams National Park

Land payment for the Park has not been made due to court case which was held in the early 1980 and then a latter hearing in 1992 to evict people out of the Park. Land awarded to the Biangai's represented by Luani Clan and the Manki was to establish the land Boundary with the Biangai, however this has also not implemented. Administration and payment of PA land is not clear. Landowners agree to the PA establishment but ask "What benefits are they going to receive as a result of the PA on their customary land (unpaid).

There is no clear indication as to who is responsible for the PA. The National Government –DEC, the Provincial Government or the LLG. There is also no ranger as the existing ranger was retrenched and the Park has been left without managing authority over it. The Park boundary needs to be clearly marked out for everyone to see.

The Luaini clan representatives said they wanted to take action in moving people out, but since the state has taken that responsibility they are waiting on the State.

Recommendations

It is recommended that through the DEC, a clear indication is given as to who is responsible for the PA, and then move on from there by meeting with the landowners and coming up with a strategy to start evicting people out of the Park and establish Rangers to patrol the Park. The rangers should be funded in a project that involves reforestation of the burnt areas within the park with indigenous species of Klinkii and Hoop pines and an ongoing activity in the Park. We must also note that the access road for the hidden valley project is going to be constructed on the western side of the park. People tend to move to the road, and this may result in more encroaching into the NP. An immediate action is required for a ranger, and landowner, LLG / DEC involvement in managing the Park.

Moitaka Sanctuary

Both the Moitaka and Paga Hill are located within the Port Moresby and they both share similar management trends. The revitalization of the Motu-Koitabu tradition like the staging of the Hiri Moale Festival and staging of the Miss Hiri anenamo queen, is culturally significant to add value management and control of the PA's conservation commitment, which in general, provide significant economic incentives, that can accrued directly and indirectly to the many city communities, particularly the Motu-Koitabu people.

There is generally a good commitment to conservation within the community. Use of the Sanctuary in a more controlled and coordinated manner, in the eyes of the general public to how best the objectives of the zoological institution can be best maintained as the "open space" to be enjoyed by all not unnecessarily compromised by lawlessness.

The main obstacles to PA success are: Visitor carrying capacity, law and order, pre-planning, transportation and security concerns for public safety, safety of state assets, animals and capital infrastructure.

Communities have their own leaders who bring forward their aspirations to appropriate authorities or sometimes through the office of Home Affairs and Youths Department. This organization takes appropriate actions on their behalf and the DEC is accordingly advised either directly or indirectly. The DEC assumes leadership and responsibility in any given situations.

Recommendations

Seeing that Moitaka Zoological Reserve is a PA under the State ownership, the Department of Environment and Conservation is at total liberty to screen any developmental proposals and will make and/or take appropriate decisions under the National Parks Act, should there be a quorum for any further participatory consultation. It is literally DEC's call.

Mojirau WMA

The main issues in this PA is to protect the area from logging and provide wildlife habitat to certain species. Is there generally good commitment? There is commitment to conservation from within the community, but it seems as the communities are not quite clear about their tasks in managing this area. The main motivator for conservation seems to be hopes for tourism and opportunities for researchers. Although adding to this there are

some sacred places within the area, which they want to protect. There seems to be a great lack of communication between the communities themselves as well with the LLG. The committee does not get together for meetings and it seems as if they are not clear on what to discuss or do.

Recommendations

- Review the original objectives of the WMA when it was set up
- clarify nowadays objectives of the communities, maybe together with the LLG

Mount Gahavisuka Provincial Park

The two main issues were that previous generation of people who agreed to the establishment of the PA never fully understood the PA objectives and allegations on misuse of funds. Some individuals still would like to support the PA objectives but they stressed that tourists would bring in a lot of income to the village.

The communities would like to revive the park themselves with the help from NGOs and they mentioned that they approached RCF several times but the response was not favourable so they are still willing to cooperate with any NGO that would like to revive the park.

Recommendations

- Those few landowners interviewed recommended that if there is any possibility of DEC reviving the park then it must allow the landowners to manage it.
- They also said if any NGOs would like to help the landowners revive the park they will cooperate and return all those park properties that were in their possession.

Mt Kaindi WMA

The PA is high alluvial gold area and as a result settlers are having an adverse impact on the PA. Because of the high alluvial content of the area, the land disputes have also been lodged with the courts resulting in the land awarded to the Biangai people. The landowner community support the establishment of PA.

The PA performs an important role in Land protection and land security for the landowners, as the legal recognition over the area enables landowner action to control the PA and surrounding land .

The main obstacles to successful PA are: Land disputes and available finances. The landowners have allowed people to move into the WMA to mine and give them cash handouts which is affecting the PA management.

Landowners suggested the following actions;

1. That there be a complete change in the WMAC and that the members must all be from Kuembu village, Kazibu clan;
2. The landowners suggested that they mine within the PA in areas where there is already major clearing, and set aside funds to help control and rehabilitate the PA.
3. The WEI management has suggested that WEI be the managing authority on the PA and that the landowners and other people with similar interest form the committee with WEI as the chairman to manage the affairs of the WMA.

Recommendations

Since the landowners have taken the initiative to look after Kaindi WMA, DEC should give a letter of support and approval to them to go ahead with the change in the WMAC and then the new WMAC can look at allowing mining to continue or come up with a new strategy to look after Mt. Kaindi WMA. DEC should also look at the committee formation and allow for a provision that makes non landowners such as companies, individuals, and organisations to be members of the WMAC to effectively set up a team that will manage the WMA.

Mt Susu Nature Reserve

The main issues is who is responsible for Mt. Susu, and what kind of PA is it. Local communities live away from the PA which is within forest plantation, therefore NFS is looking after the PA. The NFS is looking after

the area because gardens of fires within the PA will affect the plantation trees. A clear identification of who is responsible for Mt. Susu will be a starting point to making sure the area is well protected. No community suggestions were made as it is state land.

Recommendations

I am recommending that Mt. Susu be delegated to the Bulolo Wau National Forest Service and that they can look after the responsibility of managing the PA, and that DEC should liaise with the LLG and Provincial Governments to allow for this to take place since all the area surrounding the PA is the responsibility of the NFS and they have been doing a good job of making sure Mt. Susu remains intact.

Mt Wilhelm National Park

Mt Wilhelm National Park has a critical land function as having intact clear glacial depositional landforms and being the highest mountain in PNG. As such it creates a sustainable livelihood option for the local people who only expressed during the survey that DEC should revive the park management.

Although there may be a few resistance by local people for DEC to manage the Park the majority of the community members are keen for conservation of the parks biodiversity.

The main issue in the PA is the bickering and the claims for money and payment for land which have been rumbling on for more than a decade. Community members are bickering amongst themselves as to who should be the rightful beneficiaries of tourism. And tourism currently divides the community as guest house owners are making money while most do not.

Mount Wilhelm is one of the few PAs in PNG that has the opportunity to make management pay for itself, through tourism. As such it could not be seen as model for most PAs in PNG. The benefits of tourism must however be seen to be fairly distributed and, at least in part, to be benefiting the community at large. The dangers of not doing so are highlighted above by the current situation.

Option 1: The former Provincial Ranger Bing Siga suggests that a form of community involvement should be encouraged in the management of the Park despite its being a National Park and state owned. These communities would have to be the former landowners (?and the surrounding landowners?). VDT are well positioned to take a lead in facilitating the community action as they are currently working successfully with communities about 8kms from Mount Wilhelm. They also have the advantage of having Bing Siga's experience in the previous management.

An agreement could be drawn up between an NGO and a community organisation to manage the Park on behalf of the State. If it is an NGO in partnership with the community that was to reinvigorate management of the Park this might avoid the seemingly intractable issues (of previous non-payment of salaries and land payments) that currently appear to be stumbling blocks to restarting management. These payments are solely the responsibility of DEC.

Option 2: Joe Bongere, the Principle Advisor of the Commerce, Culture and Tourism Office in Kundiawa also expressed an interest in Mount Wilhelm and suggested that its management might be facilitated through his office in Kundiawa in collaboration with DEC.

The preferred option of this writer is Option 1, management by local people, facilitated by an NGO.

There is also great potential for the expansion of the Park limits to extend further down the mountain. There are landowners willing to add their land to the Park and this would have more than one benefit. The viability of wildlife populations is increased by an expanded area and by increased altitudinal range and by the inclusion of differing vegetation / habitat types.

The sticky issue of access to the National Park is one that is (to the knowledge of the writer) not currently resolved. It remains highly likely that individual land owners may bar visitors from reaching the National Park (as has been done) or charging a separate entry fee for passing across their land.

It would seem logical to charge outsiders an entry fee to Mount Wilhelm. Most tourists would expect to pay something and would be delighted if they knew it was going to community funds or up-keep of the National Park.

Recommendations:

- The landowners of Mt Wilhelm National Park as according to survey are still doubting as to which stakeholder that would effectively manage it.
- Thus I recommend that; DEC must officially make known to the landowners of Mt Wilhelm National Park whether it will reconsider managing the park or no. If DEC decides not to then probably it can transfer the function to the Simbu Provincial Government.
- If neither DEC nor Simbu Provincial Government are unable to manage the Park then probably a conservation organization may be able to assist in managing the park as the landowners are still adamant to conserve the biodiversity in situ for a sustainable livelihood.

Namanatabu Reserve

The main issues in this PA are preservation of natural systems and restoration of wartime establishment. There are no apparent destructive forces in the reserve.

There is generally good commitment to conservation within the community. The communities living adjacent to the reserve do not unnecessarily enter into the reserve. The reserve is least touched and/or least visited. It is relatively tucked away on the southern saddles of the Hombrum Bluff where it is relatively rugged to climb. The reserve is also traditionally regarded as a taboo area for any wanton visits. The incentives for money and/or tourism is unlikely now but may be considered.

There are no real physical obstacles preventing the work of the reserve, as there is no real demand placed on the area by the customary landowners. They are very mindful about the historical importance of the area and they too want the area to be protected from any undue outside influence.

PNG cultures and traditions sincerely allow that whenever a “Community Commitment” is made, it has to be honored by those of the future generations. In the case of Namanatabu Nature Reserve community commitment was originally entered into in 1947, during the WWII, and to this very day the land, which is only 27.44 ha is relatively too small to be of any attraction for other form of land use. Decisions were made and affirmed by the great chief of the Nadeka Clan, Mr. Warite Koale and his children at this present time, they continue to uphold and honor that great commitment. The Namanatabu Reserve is a gift to the State.

Recommendations

The Namanatabu Reserve is a PA under the State ownership, and the Department of Environment and Conservation is at total liberty to screen any developmental proposals and will make and/or take appropriate decisions under the National Parks Act, should there be a quorum for any further participatory consultation. It is literally DECs call.

Nanuk Island Reserve

Nanuk Island stands as the most easily accessible PA (30 mins by outboard motor from Kokopo) and requires input from the ENB Provincial Administration. Responsibilities for the PA have been given to the Tourism Bureau but there needs to be a commitment from them in taking the PA to the next level. Caretakers need assistance and together with that, this can become a useful PA with options of self funding if advertisement of wrecks and picnic trips are pursued.

Recommendations

The PA is on State land and to get it to its functional status would need the following:

- Conduct a needs assessment with the caretakers and ENB Tourism Bureau. This will be to look after the conservation and development needs of the community and how to deter pressures and threats. Skills for caretakers may include management and book keeping skills besides other administrative responsibilities. A proper work plan and specific conservation objectives to be decided upon including proper advertisement of PA.
- Awareness of legislation and enforcement. This to be held with LLG and law enforcement agencies (Police) so that they are aware of the enforcing legislation and how it can be enforced or implemented.
- Review of boundaries of PA with boundary descriptions written down.
- Need for awareness exercise to be given out to confirm state of conservation on PA. Visitor facilities or social infrastructure may need to be considered.
- An activity in the work plan would be the placing of signs on islands with fines specified.

Ndrolowa WMA

Not reviewed

Neiru (Aird Hills) WMA

The major management issues could be that (1) the motivation for development of the WMA was to earn more money or get cargo, (2) no-one really understands what a WMA is, (3) there is a dispute over who are the rightful landowners of the existing WMA, and (4) there is a dispute over who should be the WMA Committee.

The landowners have been trying to have the WMA Committee registered as a business group with the Investment Promotion Authority (IPA). Once registered with the IPA, they hope to seek funds from donors to fund projects in the WMA area.

They have been also negotiating with Chevron Niugini to have the communications tower reinstalled on top of Aird Hills Mountain. The communications tower was removed after a dispute over rental payment by the landowners.

The landowners are proposing development options when WMA rules have not yet been formalised and gazetted by DEC. There is no land-use management plan for the area, and no clear understanding of what a Wildlife Management Area (WMA) really is.

Some of the existing and potential issues are listed below;

1. The potentially major impact on water quality, fisheries and wildlife from adjacent impending major logging operations.
2. There are direct and indirect impacts of the Chevron Niugini oil operations: efforts are being made to minimise both social and environmental impact, but the social impact is major – some good [schools and health and some appropriate development], some bad [increased expectations for cash incomes, increased pressures for unsustainable development].
3. There is a need for technical advice and assistance with issues such as fisheries and forest management.
4. Population growth and pressures for increased resource extraction have led to the use of new technologies, such as wide spread use of fishing nets, that can have a more substantial impact on the environment.
5. There is a lack of government support for the Committee.
6. The village of Samoa lies centrally within the WMA area yet these people are not landowners.
7. The rules need updating to meet new conditions.
8. Outsiders continue to come into the area to fish and hunt.
9. A major oil spill is possible with pipelines and ship unloading facilities.
10. Substantially increased logging activity in the region is likely with a possible related increased pressure for logging to occur within the WMA or in other critical areas.

The WMA Committee has not been conducting meetings regularly due to the conflict of interest and lack of better coordination and conviction among the landowners. The rules do not appear to have been gazetted and there are confusions as to what the rules actually are. No rules have ever been enforced. If the new WMA Committee functions they should give high priority to reviewing and re-gazettal of WMA rules. From these we can conclude that there is no commitment from the community as well as the committee members to achieve the goals of the WMA

The major obstacles to successful PA work include :

- Cargo mentality
- Land tenure system
- Poor communication between partners and the community
- Poor knowledge of the purpose and functions of the WMA and the committee members

To date there has never been any initiative from the community to resolve the current conflict. Otherwise, other conflicts related to use of land or use of resources are normally resolved through community gatherings.

Recommendations

- Liaise with community members and the two WMA committees to have a meeting and resolve the problem and appoint new leaders to manage the WMA again
- Conduct workshop to the people especially on the concept of WMAs and educate people of the significance of the PAs locally, regionally and internationally.
- Carryout awareness on the importance of the environment
- Submit WMA rules for gazettal so that these rules are enforced to protect the biodiversity within the Neiru Wildlife Management Area.

Nusareng WMA

TO BE SUPPLIED BY WEI

Oia Mada Wara WMA

TO BE SUPPLIED BY DEC

Paga Hill Scenic Reserve

The main issues in this PA are use of the Reserve and the public perception as to how best they can maintain the “open space” areas of the fast growing city of Port Moresby.

There generally good commitment to conservation within the community. The revitalization of the Motu-Koitabu tradition like the staging of the Hiri Moale Festival and staging of the Miss Hiri anenamo queen, is culturally significant to more value adding to the Reserves conservation commitment, that in general provide more economic incentives that can be made available to the city communities, particularly the Motu-Koitabu people

The main obstacles to PA work are: Visitor carrying capacity, pre-planning, transportation and security concerns for public safety.

Communities have their own leaders who bring forward their aspirations to appropriate authorities or sometimes the Home Affairs and Youths Department take actions on their behalf and the DEC leadership and responsibility is highly recognized in any given situations.

Recommendations

Seeing that Paga Hill Historical and Scenic Reserve is a PA under the State, the Department is at liberty to screen any developmental proposals and will make and/or take appropriate decisions under the National Parks Act. Should there be a quorum for any participatory consultation, it is the DEC's call.

Pirung WMA

This PA will be successful. From their past operations, they have a good track record of PA activities. Therefore, I recommend for the reactivation of the PA and support them with funding in terms of staffing, office space, logistic and etc.

Pokili WMA

The main issues in this PA is financial constraints to carry out activities. There generally good commitment to conservation within the community. The PA is partially working due to the birdwatchers coming in. Obstacles include: Financial, lack of technical training, lack of infrastructure for visitors.

Recommendations

- technical training for WMA in proposal writing etc.
- Site visitations of other PAs
- Community entry process was never done properly → might be helpful to redo it

- Learn what WMAC roles and responsibilities are

Ranba WMA and Wildlife Sanctuary

There is good reason to believe that fish and coral stocks and diversity around Long Island are still in virtually pristine condition (question 3) and there is good cause to attempt rejuvenation of conservation efforts there. Aside from a market for trochus shells and some shark fin, the main threats come from within the sharply increasing local population (question 2). These include the hunting of turtle and cuscus, fishing, but also habitat erosion by gardening and the annual burning of forest / bush.

There is strong concern for economic opportunities on the island but no sustainable resource uses have been identified (question 15i). The community has not been organized sufficiently or empowered to have considered such options.

A Christian mission on the island has reduced the commitment to traditional beliefs but traditional closure of areas to hunting can still occur (question 4).

The committee was functioning in the 1980s and for instance a system of fines was in place. There was at that time active support from DEC; the termination of which coincided with the collapse of active interest within the committee. This should highlight a potential cause for future trouble – the committee could be goaded into action with little more than constant contact and encouragement, however, the emphasis should be on transferring responsibility back to the people of the island or it will collapse again when the support ceases. The community cites a lack of support as the reason for collapse but it is the landowners that should hold the ultimate responsibility for conservation of their island. This is especially true for a remote island such as this where it is difficult to maintain constant long-term support.

New committee members were proposed by the community at the RAPPAM meeting although there is very little idea of what they might actually do. There is some hope that this committee may have reasonably effective leadership as an able man suggested as Chairman, Matthew Ronny, appears to have the support of the community and at least some of the Ward Councilors and the District Administration.

The community being the key to success, and with almost no social data collected so far, it is essential to first conduct a basic programme of socio-economic research to establish the needs and motives of the people and the best way to support the PAs (questions 9 & 10). A campaign of environmental awareness would be necessary for the long-term sustainability of these PAs. To transfer the capacity and incentive to the committee it would be important to conduct sustained training in basic management skills, significantly in leadership skills particularly. Ecological data collection has been sparse and patchy; such research could follow in due course (or ideally, concurrently) and is not the first priority. Research institutions (eg UPNG, but also including WWF and Wetlands International) could play a vital role in the revitalization and re-enthusing of the PA committees (question 15).

One concern is the remoteness, the lack of transport to the island and thus the expense of regular visits. There are however, three PAs on Long and Crown Islands that should make the effort worthwhile.

Recommendations

- First, a socio-economic survey to establish the needs and incentives of the wider community
- A sustained campaign of environmental awareness
- Training in basic management skills for committee, including leadership skills
- Collate and review the ecological research data collected to date. (A programme of ecological research to monitoring change over the years as management is revitalised would be ideal but may be unrealistic)

Sawataetae WMA

The biggest issue confronting this wildlife management area is that it is poorly located. The wildlife management area provides no protection to the ecological elements in the area that most warrant it. Instead, it provides legal protection to an area of questionable biodiversity significance and undoubted value to the local community as a subsistence resource. Furthermore, the siting of the wildlife management area on land that is subject to agricultural and pastoral leasehold means that any “legal” protection provided by it is dubious in any case.

The protected area is not working. There is good superficial commitment from the community to the continued existence of the wildlife management area, but has a poor understanding of biodiversity conservation and legal issues (see also notes above).

The main obstacles to success include: lack of clear and relevant objectives; poor siting, resulting in lack of significant biodiversity, and conflict with local community subsistence requirements; and understanding of biodiversity conservation issues within the community.

No suggestions were provided by the community for action to resolve the problems.

Recommendations

It would be difficult to justify further national government involvement from a conservation perspective, however, local level conservation efforts should ideally be supported by government. Mechanisms are needed to promote and fund such local level initiatives without diverting funds from strategic biodiversity conservation activities.

In the case of Sawataitai WMA, a first step would be to educate the local community of the true cost to them of genuinely enforcing the WMA rules as they exist, and with that knowledge, to recommend a choice between three options: i) begin enforcing the wildlife management area rules as they exist; ii) degazette the wildlife management area; or iii) redesign the wildlife management area to capitalise on local biodiversity values and to exclude the hunting grounds required for the subsistence of the local community.

Sinub WMA

Sinub Marine WMA stands as a PA that covers a small area and can be effectively maintained and managed by the WMA committee who at the moment needs organising and strengthening skills.

Wetland International must sit down and discuss with the WMA committee and others within the Madang lagoon frankly on what conservation and development goals can be fostered between the community and conservation science and recognition. While conservation goals will be maintained, the need for development options for the traditional custodians of the PA would need to be considered. Aqua Adventure need to discuss with the WMA committee on the current visitation arrangement so that a mutual agreement can result.

Recommendations

The following is a guide to assist the WMA committee in getting them organised to fully participate in this PA.

- Supporting of the formation of a CBO from the WMA committee to give it legal status so that can approach organisation such as Community Development Scheme and others for assistance. They would need assistance and skills in this area. This will look after the conservation and development needs of the community including management and book keeping skills besides other administrative responsibilities.
- A proper annual work plan to be decided upon and transparent to WMA committee and not only from Wetland International or other researcher's viewpoint. Committee and community to be involved as much as possible.
- Upgrading of PA from WMA to Conservation Area or any other LLG legislation to give it more protection of the flora and fauna. This need to be weighed and maybe not as necessary as the terrestrial WMA.
- Capacity building of CBO including skills to carry out community profile and ranger training. LLG and law enforcement agencies (Police) to be involved so that they are aware of the enforcing legislation and how it can be enforced or implemented.
- From sourcing out funds, sustainable livelihood options need to be looked at within the Sinub area. This needs to be discussed with WMA committee as pressure is placed on marine resources as there is a lack of gardening areas. Maybe a guest house for travellers to Madang or workers to rent out houses such as those on Kranket island.
- Develop these activities as part of a Madang Coast MPA network including Madang Lagoon MPAs, Ranba WMA/Sanctuary and Crown Island Sanctuary

Siwi-Utame WMA

Not reviewed

Tab Island WMA

The WMA is very rich in marine life, including coral, fish and other fauna such as turtles and is considered very significant for its biodiversity ranking within the Asia-Pacific region (question 3).

The WMA is functioning and crucially the community feels it has had some success - in reducing the effect of dynamite fishing. There is strong leadership provided by the Chairman, one of the main landowners, and he is able to galvanise the community (question 15).

At the time of the RAPPAM assessment the committee is itself not fully re-established and known within the community and resolving this must be the main priority for the WMA. Secondly, at the time of the meeting the WMA was not yet officially gazetted and cannot be considered legally binding until that occurs.

The involvement of Wetlands International has provided valuable encouragement to the community by demonstrating the real biological effects of protection. However, the WMA needs to assert its right to take full part in the ecological and social monitoring (question 10). Currently this is just discussion within the committee and a source of frustration and a reason to feel a lack of ownership of the management process. For the same reasons of ownership it is also vital for the capacity of the committee to be raised so that they can establish their own system of work plans (accepted at the RAPPAM meeting as a positive step they should undertake, question 10), to keep financial accounts, and to be able to update their own management plans in the future (question 8).

Tourism is the one sustainable resource use option that has been identified by Tab WMA (question 15i). They have not done any feasibility studies for this and it was identified at the meeting as a good action point. However, this could be best done through the Madang tourist bureau and there is a bad relationship between that office and Tab. This must be overcome with perhaps someone other than the Chairman delegated to the task.

A very basic task identified at the meeting was to resolve the current confusion over the payment of funds by dive operators to the WMA as they have so far been misdirected to the wrong person (question 12). Bringing money into the WMA via its own means could be a good way to encourage young members of the community to view the WMA as a valid and worthwhile cause.

The committee stated that they need a motor boat to conduct basic monitoring and rule enforcement as the WMA is located off-shore and is not easily managed from the mainland alone. Because of this the committee made the positive suggestion that they could position someone on Tab Island to monitor and discourage illegal activities (question 5).

The committee are convinced of the need for an awareness campaign in Madang Lagoon (question 8 & 10) and since the RAPPAM meeting they have already taken part in such a project. This should be an on-going process.

There appear to be few major obstacles to conservation within the community and they have shown an ability and willingness to think of solutions, to take initiatives and to take responsibility. This should be highly commended.

Recommendations

- Training in basic management tasks: accounting, report writing, but also advice on patrolling (WMA committee to eventually be able to update its own management plans)
- Training and involvement in both marine and socio-economic surveys (encouraging sense of ownership of all aspects of management)
- Committee to firmly establish the committee membership (to enable these members to develop their roles)
- Follow up the final obstacles to official gazettement (to enable legal action to be taken against offenders)
- Committee to draw up a regular work plan (to delegate responsibilities)
- Committee to review the existing payments from dive operators (to encourage local youth to value the WMA)
- Committee to research the feasibility of developing the tourism business (to encourage local youth to value the WMA)
- Committee to seek funds for a boat from sources they identified (to enable monitoring and enforcement of rules)

- Committee to continue to conduct awareness campaigns in Madang Lagoon
- Develop these activities as part of a Madang Coast MPA network including Madang Lagoon MPAs, Ranba WMA/Sanctuary and Crown Island Sanctuary

Tabad Island WMA

TO BE SUPPLIED BY WWF

Talele Island National Park / Nature Reserve

Talele island group is situated just two hours on the north coast of ENB and presents an excellent spot for picnics or marine scientific research. Since its gazettal in 1973, nothing much has been done and the PA would require some organisation with the community to get it into a National Park status again such as Nanuk that has observers who oversee the island. There is a need to clarify the status of the PA between DEC and the landowners and this need to be sorted out firstly before any other activity begin.

Recommendations

- Status of the PA to be re-established with DEC,LLG and Landowners
- Supporting of the formation of a CBO or landowners committee or park rangers? to look after the conservation and development needs of the community including management and book keeping skills besides other administrative responsibilities. What requirements of Nature Reserve are there to cater for the clan needs or?
- A proper work plan and specific conservation objectives to be decided upon.
- Capacity building of clan group with skills in ranger training. This to be held with LLG and law enforcement agencies (Police) so that they are aware of the enforcing legislation and how it can be enforced or implemented.
- Review of boundaries of PA with boundary descriptions written down.
- Need for awareness exercise to be given out again together with sustainable livelihood options. A survey need to be undertaken first and would follow together in the work plan as set out above. Together with this, visitor facilities or social infrastructure may need to be considered.
- An activity maybe the placing of signs on islands to deter people followed by fines or restriction as to the amount of resources harvested. This depends on largely to whether this is agreed to by the clan leaders.

Tavalo WMA

Tavalo WMA seems isolated but has all the hallmark that can be developed into a PA that can be self sustaining including tourism options but this need to be explored further. Before this is embarked upon, it would also depend upon how the Pomio district can develop to allow connecting infrastructure to get down to Tavalo. Before here are recommendations for this PA to assist it to advance further and maintain its status.

Recommendations

- Supporting of the formation of a CBO from the WMA committee to give it legal status. There is already a land group incorporated and need to see how to blend with it. This will look after the conservation and development needs of the community including management and book keeping skills besides other administrative responsibilities.
- A proper work plan and specific conservation objectives to be decided upon.
- Upgrading of PA from WMA to Conservation Area or any other LLG legislation to give it more protection of the flora and fauna.
- Capacity building of CBO including skills to carry out community profile and ranger training. LLG and law enforcement agencies (Police) to be involved so that they are aware of the enforcing legislation and how it can be enforced or implemented.
- Land use mapping to be confirmed with zonings and made out for the community and outsiders to know.
- Need for awareness exercise to be given out again together with sustainable livelihood options. A survey need to be undertaken first and would follow together in the work plan as set out above. Together with this, visitor facilities or social infrastructure would need to be updated from what is available now.

- Advertising of the guest house to cater as a base for game fishing, dive wrecks or bird watching is also useful but a biodiversity survey needs to be carried out firstly, preferably to be placed into a workplan at the start of discussions with the CBO.

Tonda WMA

The main issues of the PA are:

- Organisational and financial management skills training.
- Enforcement of PA Rules.
- Office set-up.
- Key training for PA committees and rangers.
- Regular and systematic process of report and monitoring of activities taking place in the PA

There is evidence of some commitment transpose by resource owners but lack of PA management capacity by committee members makes breach certain rules as there is also lack of law enforcement.

Currently, tourism activity is the only driver for community conserve but money incentive in the form people enable to set-up small income generation activities would real impact on conservation of resources.

Lack of fund raising and incentives to support PA committees and a proper PA functional office would pave way for a healthy PA work.

Issues at community levels are solved by each community through community resolution action process but issues within PA committees are only resolved at the meeting which has not occurred in the last two years.

Recommendations

The following recommendations have been expressed by PA committees and also observed during several of our field patrols.

- set-up PA office
- review of committee PA structure
- management capacity
- develop and plan training for PA committees, rangers
- mass awareness on PA rules and assist community members with income generation incentives and
- finally, assist PA to fund raise and support itself to effectively run its own affairs.

Varirata National Park

TO BE SUPPLIED BY DEC

Wewak Peace Park

NOT REVIEWED

Zo-oimaga WMA

TO BE SUPPLIED BY DEC